

Customer No.: 31561
Application No.: 10/604,392
Docket No.: 10606-US-PA

In The Specification:

Please amend paragraph [0023] as follows:

[0023] Fig. 3 is a schematic side view showing a gas distribution system atop a wafer reaction chamber according to a preferred embodiment of the present invention. The plasma gas reaction station in Fig. 3 includes a main gas distribution conduit 202 and a reaction chamber 200. The gas distribution conduit 202 for delivering gas into the reaction chamber 200 first joins up with a gas separator 203. The gas separator 203 has two separate output conduits 2021 and 2022. The conduit 2021 is connected to a set of gas nozzles 2041 close to the central region of a top plate 204 and the conduit 2022 is connected to a set of gas nozzles 2042 distributed around the peripheral region of the top plate 204. Gas from the gas nozzles 2041 is prevented from mixing with gas from the gas nozzles 2042 through an O-ring 205 in the top plate 204 above an upper electrode panel distributor 206. A pair of flow control valves 2071 and 2072 controls the gas flow rate through the pipelines 2021 and 2022 respectively. By controlling the flow of gas through the conduits 2021 and 2022, distribution of gas inside the reaction chamber 200 after going through the gas holes 208 on the upper electrode panel distributor 206 can be tuned to whatever processing conditions one demands. The O-ring 205 can be fabricated using elastic material including rubber or plastic if the plasma gas used for the reaction is non-corrosive. However, if the plasma gas is corrosive, the O-ring 205 must be fabricated using a corrosion-resistant substance including, for example, Teflon polytetrafluoroethylene.